

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated April 1, 2008. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-19 and 22-23 are under consideration by the Examiner in this application. Claims 1, 2, 4-5, 9 and 12 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 2 and 5 were objected to for various informalities. As indicated, the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding formality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 1-19 and 22-23 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Sato et al. (US 2004/0111441) in view of McBrearty et al. (US 2002/0133681), Pitts (US 6,205,475), and newly cited Sakurai (US 5,093,779). This rejection has been carefully considered, but is most respectfully traversed.

The file replication method of the present invention creates, in a distributed file system (e.g., Fig. 1) including a plurality of network storage apparatus and a replication system each connected to a network 102, the replication system having a management table 157 for managing *attribute information* of all files and all directories in a first network storage apparatus 103 as a replication source, a partial copy of data stored in the first network storage apparatus 103 into a second network storage apparatus 104 as a replication destination (Fig. 7; “*The unified management directory 157 manages only the files-and-directories tree structure of the entire virtualized-and-unified file system 103 including the*

network storages 120 to 122 and all the file identifiers (they include attribute information). Although the unified manage directory 157 provides the files-and-directories tree structure for the clients, each of the files in the unified management directory 157 does not have data as the file entity. All data are stored in distributed relation in the network storages 120 to 122.” p. 22, last paragraph). The method comprising the steps of: preliminarily recording replication information (i.e., corresponding to the information registered into the rule table 412 of Fig. 4; p. 57, lines 9-19) indicating whether or not each of the files and the directories stored in said first network storage apparatus is an object to be copied in said replication system (p. 7, lines 9-12; p. 34, lines 4-8; p. 36, lines 10-13); receiving a file access request from a client; judging whether or not a replicating operation should be performed with execution of said file access request by using said management table and said replication information; simultaneously transferring, if a result of said judgment is such that the replicating operation should be performed, said file access request to said first network storage apparatus and to said second network storage apparatus; collecting from said first network storage apparatus and from said second network storage apparatus responses to the file access request and making the collected responses into one response; and sending said one response to the client (Fig. 5, step 505; p. 38, line 20 to p. 39, line 9). The method recited in claim 9 includes more details.

The invention as recited in claim 4 is directed to a replication system for implementing the method recited in claim 1. Claim 12 recites a similar system.

Applicants respectfully contend that the cited references fail to teach or suggest that “the received file access request is also transferred to the storage having a replication file of the accessed file”; and the steps of “collecting from said first network storage apparatus and from said second network storage apparatus responses to the file access request and making the collected responses into one response; and sending said one response to the client” as in the present invention.

In contrast, Pitts only describes that the number of the substance of data being one, and a plurality of requests are simultaneously performed upon the same data set. Pitts does not teach “simultaneously transferring a file access request to the replication source and to the replication destination”, and “collecting file access requests form both replication source and destination, and then sending to the client the collected responses as one response.” The other cited references fail to compensate for such deficiencies.

Applicants contend that the cited references or their combinations fail to teach or suggest each and every feature of the present invention as recited in independent claims 1, 4,

9 and 12. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

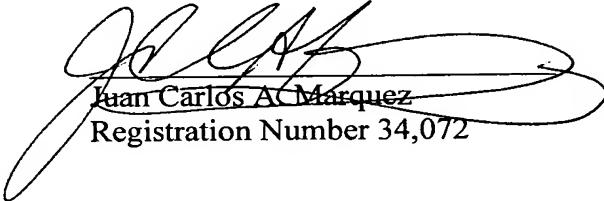
Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,

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